A Case Study of a Volunteer-Based Literacy Class with Adults with Developmental Disabilitiest

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The purpose of this study was to examine participants' perspectives on how a volunteer-based adult literacy class supports the learning of adults with developmental/intellectual disabilities. Interviews were conducted with four tutors, three adult learners, and two coordinators and observations of the class occurred over a 6-month period during which the author was a tutor. The focus during this time period was on health and mathematics. Three major categories were identified: class organization (goals and structure), teaching strategies and behaviours, and class activities. Based on these findings, several recommendations are presented including the need for further integration of adult learners' out-of-school literacy activities into the class and for increased tutor knowledge of the adult learners' disability.

Keywords: adult education, developmental disability, volunteers, literacy, health.

Given that the demand for adult education seems to be steadily growing (Knighton, Hujaleh, Iacampo & Werkneh, 2009), there is a continual need for research on how adult education classes can be most supportive of adult learning. It is well known that volunteers often dominate staffing within adult education programs. For example, voluntary tutors are the majority of adult basic education (ABE) instructors, particularly for one-on-one instruction (Belzer, 2006). Within volunteer-based programs, less is known about how learning is supported with adults with disabilities (Silver-Pacuilla, 2007), specifically developmental/intellectual disabilities. Therefore, the purpose of the current research was to examine a volunteer-based class for adults with a developmental/intellectual disability in a not-for-profit adult education centre in a large Canadian city.

There are a number of ways of examining how programs can best support adult learners' literacy development, including gaining knowledge from the experiences of the participant. Knowledge of the type of strategies used by volunteer educators in adult literacy classes as well as the examination of what adult learners take from education classes - what is meaningful and authentic to them, and how adult learners incorporate curriculum content and practices into their daily lives can provide insight (Lave. 1996). Authentic activities can be described as literacy uses found in social contexts outside of schools and that mediate people's social and cultural lives (Purcell-Gates, Degener, Jacobson & Soler, 2002). It is known that adults with developmental disabilities often require basic educational skills as well as educational skills that assist in their community living (Brown, 2011) and gaining information from these learners about what can assist their daily living and educational skills in general is significant given the limitations on what is known about how to support adult learners with developmental disabilities attending volunteer-based adult literacy programs.

Literature Review

The following literature review incorporates the research perspective, information on the general structure of adult education programs,

as well as information on adults with developmental disabilities and their education.

Perspective

When examining activities and events considered important for adult literacy learning, a social practice view of literacy was incorporated. Research that is based on literacy as a social practice takes the view that literacy develops though broad social relationships and that literacy events as part of these relationships are purposeful and shape one's learning (Barton & Hamilton, 2000:12). Through the examination of in-class literacy events as well as reported out-of-school literacy activities, it is possible to gain a deeper understanding of what supports literacy learning for adults with disabilities through their interactions with others in the classroom as well as those in the community, including their everyday literacy events.

Program Structure

There are different ways of structuring adult education classes that can shape the teaching and learning process. A common format is a hybrid model of adult basic education and general education programs (Beder, Tomkins, Medina, Riccioni & Deng, 2006; Robinson-Geller, 2007) "in which students gather in a group with a teacher but work independently on individualized assignments while the teachers assigns work, corrects student work, keeps records, and assists students as needed" (Robinson-Geller, 2007:137). Robinson-Geller (2007:137) explain that "[o]ne-on-one interactions with the teacher occur as students need help." The commonality of this adult education structure has contributed to IGI (Individual Group Instruction) becoming viewed as almost synonymous with ABE instruction (Robinson-Geller, 2007:157) and the benefit of this type of group organization is that it enables participants to work individually on the skills that they require. Another defining aspect of this type of format is that the materials are the main transmitter of information with the teacher determining the topic (Robinson-Geller, 2007) and it seems that much of the focus is on increasing general or specific knowledge of topic areas with a focus on discrete skills (Beder & Medina, 2001).

In addition to the IGI format, another common structure for adult literacy classes is one-on-one volunteer tutoring in which an adult learner meets with a volunteer individually to help the adult gain knowledge in the specific skills that they require (Belzer, 2006). Tutors in Belzer's (2006) study highlighted the importance of the learner's input and the learner's goals for the tutoring process and this type of program seems more learner driven in general than that of IGI. Differences in common program structures seems to focus on whether program topics are determined by the teacher or adult learner and whether or not there is an individual tutor for each adult learner. Both structures seem to denote limited adult learner to adult learner interaction.

Developmental Disabilities and Adult Education

The participants in this study were adults with developmental/ intellectual disabilities. Given this, it is important to understand how their learning may be different from adult learners without developmental disabilities. Adults with developmental disabilities, specifically intellectual disabilities, often have difficulties in learning and performing certain daily-life skills, and have limitations in adapting within their community environments compared to their peers because of impairments in mental functions during the developmental period (0-18 years) (Australian Institute of Health and Welfare-AIHW, 2003). Therefore, there is a need for opportunities in adult education classes to support adults with developmental disabilities inclusion in society. It is known that adults with developmental disabilities, such as Down Syndrome. often experience slower learning and "the majority of people with intellectual and developmental disabilities need opportunities for an education in the area of social competency and community living" (Brown, 2011: "Social and Community Education" par. 1). Social and social adaptive skills for community living and independence, such as carrying out basic cooking, making basic purchases, working partor full-time jobs, developing basic relationships with other people, and so forth are an important part of educating adult learners with developmental disabilities (Beck & Hatt, 1998; Brown, 2011). In addition, to support adult learners social competency, Brown (2011)

claimed that competency education is needed in basic skills, such as social sight vocabulary, and full reading skills when the individual wants this (8-10 year reading range). Based on this research, it seems that the instructional support for adult literacy learners with developmental/intellectual disabilities may be somewhat different from those attending other adult literacy classes. It was stated that "a two-pronged approach is necessary to address the 'performance gap' for students with disabilities; they need to develop learning strategies for independence as well as build their foundational skills" (Deschler cited in Silver-Pacuilla, 2007:127). Hence, skills for independent living seem to be as important as developing reading and writing knowledge for these learners.

Purpose of the Study

The purpose of this study was to examine how a volunteer-based literacy class contributes to adults with developmental/intellectual disabilities' learning from the perspective of participants. The following questions supported the purpose of this study:

- 1. From the perspective of participants, what areas of the volunteer-based literacy class best support the learning of adults with developmental/intellectual disabilities?
- 2. What are recommendations for improving the learning of adults with developmental/intellectual disabilities in this volunteer-based literacy class?

Method

Participants

The class attendees consisted of four adult learners, four tutors (including the author), and two coordinators within one 10-month class in a volunteer-based, not-for-profit adult education centre located in a large Canadian city. The class was organised for adults with developmental/intellectual disabilities, and according to one coordinator, all adults had developmental and intellectual disabilities from a review of their prior educational files, and most scored at a Level 1 on a modified reading task based on the National Adult

Literacy Survey (NALS) (Kirsch, Jungeblut, Jenkins & Kolstad, 1993) administered by the coordinators. According to the class coordinators, there was a wait-list of adult learners who wanted to join this class and the goal was to help adult learners gain life-long learning skills, self-help skills, to get them to express themselves, and to make wiser choices.

Volunteer tutors and adult learners, as well as both coordinators, were invited to participate by the author after approximately three months of volunteering in the class. The author conducted all interviews during the fourth and fifth month of volunteer tutoring. One tutor-learner dyad in the class declined to participate and therefore two tutors, three adult learners, and both coordinators consented. In addition, two tutors who were working in another class at the centre with adults, and who were regular tutor replacements for adult learners in this class, were invited and agreed to participate. Tutors typically were retired or were looking for full-time employment in various job areas. Pseudonyms were used to identify participants: two coordinators (Andrea, Alison), four tutors (Brenda, Bob, Becky, and Barbara), and three adult learners (Christine, Colleen, and Carol). Adult learners varied in age from the 20's to 40's, and the adult learner that the author tutored was in her 40's.

Class-Context

The class began in September and finished in mid-June and the author was a volunteer tutor from January to mid-June. The class met for two hours one day a week in a boardroom within the centre. Generally each session began with the coordinators leading the session on a topic and then, after approximately 30-45 minutes, tutors would work with adult learners individually on a topic as directed by the coordinators. Most often tutor-learner dyads would stay within the boardroom when working one-on-one. The coordinators would monitor and support adult learners and tutors as needed. Toward the end of the session (the last 15-20 minutes), the participants would return to a whole-class format and the coordinators would lead the session by summarizing and inviting adult learners to share some of the work they were engaged in with tutors. The main topics of the class (January-June) in which the

author volunteered centred on health (specifically nutrition) and mathematics. An example of a class session included a news sharing of weeks events, the coordinators providing a recipe handout and asking questions about it (e.g., What types of words are used? What distinguishes it from a story? Why are order of operations for recipes important?), the tutor-adult learner dyad researching a recipe on the internet that would contribute to an overall healthy meal plan for the class (e.g., appetizer, entrée, dessert), the adult learner reading their recipe aloud with help from the tutor, and questioning from the coordinators and the other learners.

Data Collection and Analysis

This study was an exploratory single-case study design (Yin, 2003) of how a volunteer-based literacy class supports the learning of adults with developmental/intellectual disabilities. Data collection involved both interviews and observations. The interview questions were composed by the author in collaboration with the adult literacy coordinators, and some questions were based on research by Purcell-Gates et al. (2002). The following is an example of questions asked/ statements to each of the participants: What types of practices work best in helping the adult learners acquire new learning? (tutor); What are some of the activities you believe are effective for helping adult literacy learners gain knowledge about literacy and health? (literacy coordinator); and Please tell me about your learning experiences in this class (adult learner). All interviews were conducted individually in a quiet area of the literacy centre for approximately 45 minutes and were audio recorded and transcribed in entirety. The author also recorded descriptive notes of her observations and, as a participantobserver (Merriam, 1998), minimal notes were recorded throughout the class observation and tutoring process but were recorded in detail following each session. Data was analyzed by first reading through all of the transcripts of the tutors, adult learners, and then the coordinators, and the observational class notes. After the initial reading of transcripts and notes, main ideas or summary points were recorded in the margins. From these ideas, a first level of codes was used to classify common findings among all the data. Three categories were developed as a second level of codes was applied to the data and inductive analysis was used to identify the major categories.

Findings

In addressing the purpose of this study, to examine, from the perspective of participants, ways that a volunteer-based literacy class supports the learning of adults with developmental/intellectual disabilities, three major categories were identified: class organization (goals and structure), teaching strategies and behaviors, and class activities.

Class-Organization (Goals and Structure)

Support of learning was stated and observed in both the goals and structure of the adult literacy class. There was some variation in participants' responses on what the goals should be for the class but it seemed that one main goal was to build adult learners' oral language confidence level and both coordinators as well as two of the tutors expressed this goal. It was this goal that coordinators and tutors generally agreed was an important one based on the needs of adult learners in this study. As one coordinator stated: "It is very difficult for students with intellectual disabilities [to express themselves], and often that's because they are never given the opportunity to articulate an opinion."

Some of the adult learners, however, wanted to make gains in their reading and writing development from participation in the class. For example, Colleen stated that she wanted to improve her writing because it would help in tasks she could perform in her volunteer job. Another adult learner, Carol, claimed that she wanted to write more clearly. The coordinators stated that they made learners aware at the beginning of the class that the main goal was not to explicitly teach reading (indeed, all adult learners did have some reading and writing skills), but it was expected that by becoming more confident in sharing ideas and participating in meaningful literacy tasks that their reading and writing would improve. As Andrea stated, "the goal is to teach transferable skills that they can use in their lives...Phonics is not the way to go about it. They like to use their adult experiences

to tap into their adult literacy skills." From my observations, all class sessions involved reading and writing activities, although reading and writing were not formally taught by the coordinators. The coordinators and tutors believed that learning was supported when the goals matched the educational needs of adult learners, and for those with developmental/intellectual disabilities, building self-help skills and adult learners' confidence level was important. From observations and results of interviews, adult learner confidence levels seemed to improve throughout the class. As stated by Bob: "Students are more confident in what they do [from participating] and hopefully this will affect other areas that they're not so good at."

As part of the class organization, and in connection to the class goals, class structure seemed to support adult learning. The structure of the class supported interactions between the tutor and adult learner as well as opportunities for adult learners to interact in whole class discussions. For adult learners with developmental/intellectual disabilities, the extra support needed by an individual tutor was provided in contrast to the more common structure (i.e., IGI) of adults working independently in a whole-class format. The wholeclass discussions led by the coordinators before and after one-onone tutoring provided opportunities to optimize social interaction and for adult learners to gain confidence in sharing knowledge and opinions as the tutors supported adult learners. The structure of the class connected to the coordinators' and tutors' goals, in that of building self-confidence in adult learners through helping them learn to articulate their thoughts. Adult learners were held accountable for their learning by the coordinators, such as through direct questioning of content, and the author's observations of the class structure for supporting learning concurred with comments from tutors. Brenda stated that she believed the whole group gathering preceding and following one-on-one directed learning was beneficial for adults' learning, and Bob commented that having a group context was important as opposed to the common format of only one-on-one tutoring for these adult learners because "they support each other in the context [whole class] and this can reinforce the learning process." The author did not ask questions directly about the structure of the

class, but when asked about how class learning was supported, these comments were presented.

The size of the class was another aspect of the class structure that was reported to support learning. As mentioned previously, there were 10 adults in the room during each session. Both Brenda and Becky, as well as the coordinators, commented that an intimate environment was crucial for these learners' success and believed that this existed in the current class. Given that the goals of the program were to have adult learners more confident in expressing their thoughts and feelings, having a small class size nurtured opportunities for this happen by providing many opportunities for adult learners to have an audience, yet feel individually supported by the tutor.

Teaching Strategies and Behaviors

There were strategies and behaviors that tutors and coordinators believed were important for increasing adult engagement and learning, however few comments were made by adult learners about strategies that worked well for them. Adult learners were inclined to state the types of activities they enjoyed participating in but had more difficulty articulating strategies that supported their learning, perhaps due to their disability. The recommended strategies included a focus on visuals, learner accountability, and the establishment of a positive teacher-learner relationship.

The use of visuals was a commonly used strategy, particularly, it seemed, because several class sessions focused on mathematical activities. Visual strategies were used to help adult learners develop conceptual knowledge as well as word knowledge. In one activity, adult learners were asked to calculate fractions after a session demonstration and discussion of the topic. Susan claimed "drawing helps, particularly with things like fractions. To help somebody understand fractions I normally draw a pizza, [and ask] if you eat half of the pizza, how much are you leaving for me?" At the end of the session, adult learners would then talk about what they understood and did not understand about this topic. During one-on-one tutoring, drawing and writing activities in relation to oral discussions were also considered important for helping adult learners understand concepts.

Brenda particularly noted the importance of diagrams for the adult learner she worked with. Another form of visuals, the use of video recordings in the class, also seemed to support learning. The author had observed that when Christine had watched a video on the topic of hand washing, for example, she was able to recall more specific details from it than from a written handout on the topic that adult learners read to tutors and then discussed in a whole group. Bob shared that the visual strategy of having adult learners write down a word and tell the meaning, especially if it was orally spoken and the learner did not understand it, worked well for adult learners' common use of the word in that it supported recall and understanding. Tutors experimented in their teaching strategies with these learners and visual engagement was clearly viewed as an important tool for supporting adults with developmental/intellectual disabilities. In addition, class coordinators often designed class activities using materials with pictures or drawings, such as grocery advertisements, and these visual materials were often ones that adult learners reported to see outside of the class, supporting connections between in-class and out-of-class learning.

Learner accountability, such as asking adult learners to explain the statements they made, was another strategy that seemed to support the learning of adults with developmental/intellectual disabilities and it could be linked to the goals for the class. According to Bob, asking if something makes sense is important for learning because too often adult learners with disabilities do not understand but the tutor does not probe to check. As Bob stated, "don't assume that what is being said [by the tutors/coordinators] is understood." Becky also claimed that there is a need to reinforce what is being stated: "I don't just let it go [when it seems that the adult learner does not understand]; I repeat," which seemed to be her way of making the adult learner accountable for learning. Both coordinators talked about the need to make adults accountable for their learning and to not let learning slide because learners have a developmental/intellectual disability. In the whole group setting, I noticed that some adult learners began to feel uncomfortable when they could not answer a question from the coordinator after a time lapse. The coordinators would often reword questions for the adult learners in these situations but did not direct

a question to another adult learner unless there was some response. The goal of making adults with developmental/intellectual disabilities more confident in their speaking skills and increasing their general knowledge was reinforced by teaching strategies and behaviours used in the tutoring process and in whole group discussions.

Although wanting to make adult learners accountable for their learning, tutors specifically commented on the importance of establishing a positive relationship with the adult learner, which involved establishing feelings of trust and getting to know more about their personal interests, including their likes/dislikes within the tutoring session. All tutors stated that a positive relationship with and attitude toward teaching an adult learner with developmental/ intellectual disabilities was critical for supporting their learning. Particularly Bob restated this often with emphasis on when the adult learner is speaking in front of the class. To further establish a positive relationship, Brenda and Bob stated that discovering a learner's personal interests could take some time but it greatly supported the activities they engaged in with adult learners and their relation with them. Adult learners seemed to appreciate the opportunity to get to know the tutors as well as other learners on a more personal basis and the class structure assisted in this. One of the whole group activities was called "I Am", in which each member of the class shared information about their personal interests, and Christine stated in the interview that this was her favourite activity. Becky claimed that this autobiographical activity made a big difference in the way everyone related to everybody else. About half way through the author's tutoring with Christine, she shared that she experienced frustration when people tell her she is wrong and when she is rushed. This occurred the week following the author's participation in the 'I Am' activity when perhaps she felt more comfortable sharing her feelings. Christine did not share specific feelings about her learning prior to this without being probed. The author became more conscious of her responses to Christine, including providing more time for her responses, because of knowing what caused her frustration and this evolved as a more positive relationship developed over time with support from more personal sharing activities, such as the 'I Am' one. Several tutors did state that further information early in the class

about the everyday interests of the adults they tutor as well as their disability could support stronger tutor-learner relations and thus learning.

There were instances during the interviews where tutors shared teaching strategies such as pointing to print or sounding out words that one would find in adult educational classes focused on developing reading and writing skills, but what was considered most important for adult learning by many participants were those that reflected the goals for the class. Although the coordinators for the program established the topics and overall activities, there was flexibility in how the tutors made the material meaningful for adult learners and the use of visuals, learner accountability, and creating a positive relationship with adult learners with developmental/intellectual disabilities were dominant aspects of teaching strategies and behaviors incorporated.

Class-Activities

Overall, the two main topics of the class were on health, specifically nutrition, and mathematics, and the activities related to these topics were linked to the class goals of supporting independent living and building confidence skills in adult learners by making connections to the their out-of-school lives. There were sessions that focused on healthy food options, locating and reading recipes, money and currency, such as buying healthy food on a budget, and the use of fractions. However, not all topics or activities focused on, which could be considered authentic for some adult learners, served a function in the lives of learners in this class.

Tutors commented, and adult learners confirmed, that overall, topics in the class related well to adult learners' lives, which supported functional literacy (Sticht, 1997). Within the area of health, several sessions focused on choosing healthy food options. For example, one activity focused on a map of a grocery store and the general locations of healthier food options within it, and another involved cutting pictures of food items from grocery stores advertisements to match with the Canadian food guide groups. Adult learners, such as Colleen, stated that attending the class has helped her to eat the right food and

Carol, who was trying to lose weight, stated that the topic of healthy eating was helpful and that she eats more fruits and vegetables. Christine also believed there was a benefit in focusing on nutrition and she stated that in addition to reading product labels "to see what's in there," as was focused on in one session, she had joined a health program, which one of the coordinators confirmed. Another healthy food option activity involved the demonstration of the amount of sugar inside a can of pop [carbonated drink] and adult learners had the opportunity to participate in this process, including tasting increased levels of sugar added to water. Following this, Colleen stated "I drink diet pop now" and Andrea noted that some adults were bringing fewer soft drinks to class after the focus on the ingredients in them. Although there were several reports of change in adult activities, some tutors stated that adult learners with developmental/ intellectual disabilities could be resistant to change in their practice. For example, Becky had stated that even though Colleen knew of healthier choices, in some activities, choosing all healthier options was difficult for her.

Cooking healthy meals was a prevailing part of the focus on health in the class and several activities involved locating and reading recipes. In addition, two sessions involved reading and following actual recipes, one at the literacy centre, and another at a cooking studio located in a local organic grocery. Computers were often used to search for recipes and adult learners read aloud in the whole group information about the recipes they located in order to create a possible healthy meal. For example, the author worked with her adult learner in finding information on the computer for different ways of making one type of entrée. Although using the computer seemed to motivate adult learners, as observed by the author and as stated by Brenda and Carol, following recipes was not a practice reported as engaged in by adult learners outside of class. This may be due. in part, to limited cooking materials in some of their homes as one tutor stated that Carol does not use recipes at home "perhaps because she does not have a stove and only uses the microwave." Carol also confirmed this in the interview and stated that she would often "heat foods up in the microwave taken from a tin," and like Carol, Colleen claimed she only cooks in the microwave. When asked about whether

reading and following recipes as part of the class resulted in a change in home practice, Carol stated that her cooking has not changed and Colleen could not explain if the class had changed her cooking practices. Therefore, the focus on following recipes did not seem to have an immediate effect on this area of their literacy engagement, even though choosing healthier food options were reported to change. Perhaps choosing healthier food was also an easier option because it may not involve as much reading and/or mathematical engagement as that of using recipes.

Specific areas of mathematics, also a major focus in the class, were seen as relevant to the lives of adult learners. Particularly, activities that focused on money were considered important (i.e., counting and pricing) by tutors and adult learners given that the adult learners wanted to become more competent in this area and the tutors and coordinators wanted to build confidence in adult learners' day-to-day interactions. One activity connected to the topic of nutrition focused on creating a healthy meal for under \$20 incorporating the Canada's Food Guides' four food groups. Adult learners were to calculate the cost from the store advertisements provided in the session for the products they chose. Bob stated that knowing which healthy items costs less was considered beneficial for adult learning in that it "helps with selective buying." Adult learners had an interest in learning more about money and understanding if the issuing payment was correct, as Christine had stated that this is sometimes difficult for her. Christine stated that she looks at prices in stores, as well as grocery advertisements and pricing, and it could be assumed that the class activity that focused on adding advertised costs for food items would further support her knowledge of food pricing. Colleen believed that class activities, particularly those focusing on counting money, have helped her understand money bills more and she stated that she wanted to learn more about this area. Overall, from the author's class observations, adult learners seemed to enjoy focusing on the area of addition, particularly in relation to money costs.

Several class sessions focused on using and calculating fractions, and this section, perhaps because it was difficult for adult learners to understand, was viewed as less helpful to them. In fact, all of the adult learners claimed that they did not enjoy learning about this topic in mathematics, mostly because they found the calculations difficult, and one tutor confirmed this in reflection on the adult learner she worked with. Carol stated that she does not use fractions outside of class and when asked whether she had measuring material at home (i.e., measuring cups), she stated that she does but that she doesn't use them. One activity involved worksheets containing fractions and this seemed particularly difficult for adult learners. Clothing prices and percentage discounts based on fractions using illustrated worksheets that may have been applicable to one's out-of-school life, did not seem to change adult learners' practice in their view. Fraction learning was also discussed in relation to recipes in several sessions, an activity that many adult learners did not report engaging in outside of class. Adult learners had difficulty understanding fractions despite attempts by the tutors and coordinators to make it meaningful for them (for e.g., using diagrams to illustrate the concept), and therefore, one could assume that adult learners did not become as competent in this area in comparison to others from participating in this class.

Discussion, Recommendations, and Limitations

Discussion

This study focused on how one volunteer-based adult literacy class contributes to the learning of adults with developmental/intellectual disabilities from the perspective of participants. Given that adult learners with developmental disabilities can have difficulty expressing their perspective, their sharing of everyday activities and views of these activities (i.e., whether they enjoyed engaging in them) provided some insight on their learning. The class organization (goals and structure), teaching strategies and behaviors, and class activities provided information on the learning process.

There were some contrasting viewpoints of what the class goals should be for adult learners with disabilities in this study. Adult learners wanted to improve their reading and writing ability while the class coordinators and tutors believed that increasing competency in everyday tasks and building confidence levels in communication with others was important. Differences in class goals could be an issue for

classroom participation, retention, and learning in other programs, and indeed, Comings (2007) highlights the significance of learner goals for persistence in adult education programs, but this did not seem to be a major concern here. From my observations and from the interviews, adult learners were interested in most class activities, and at least one participant (i.e., Christine) reported engaging in reading more often at home from participating. The goals identified by the tutors and coordinators, such as increasing adults' basic competency skills, were ones advocated in the research on the needs of adult learners with developmental disabilities (Beck & Hatt, 1998; Brown, 2011), and it was reported that adult learners were making some gains in this area.

Overall, the class structure seemed to promote social skills and establish accountability in adult learners through a combination of whole class and individual support, and by including a small number of participants. Along with the social opportunities provided from whole group discussions, the one-on-one learning provided extra assistance that adult learners with developmental/intellectual disabilities may require for learning. It is known that addressing the individual needs of all adult learners can be difficult within the IGI format when switching from student to student and topic to topic (Robinson-Geller, 2007; Venezky, Sabatini, Brooks & Carino, 1996) and this structure may prove even more difficult for adults with developmental/intellectual disabilities. Having an individual tutor provided the much-needed one-on-one support while also supporting learners' educational needs and the class goals. As claimed by Brown (2011), social competency and skills are an important focus for the education of adults with developmental disabilities and the class structure supported the focus on these areas. The small class size further assisted in opportunities for all adult learners to engage in social interactions with individual support. Although little seems to be known about the class structure of teaching adults with developmental/intellectual disabilities in volunteer programs, participants in this study were in support of the current format for assisting adult learning.

Some instructional direction was provided by the coordinators in the class but there was much autonomy in the tutoring process, as also found by Belzer (2006). In general, strategies used in volunteer tutoring were often incorporated based on adult learners' needs. For example, several tutors claimed to experience success in using visual strategies, particularly with mathematical topics to help adults with developmental disabilities understand new concepts, and this learning strategy has been advocated in the research (Beck & Hatt, 1998). It is widely known that volunteer tutors are often required to make decisions about learning with little background knowledge in educational processes and development (Belzer, 2006). Although the lack of specific strategy knowledge by the tutor can be a weakness in adult literacy programs, particularly in programs staffed by paid educators with the goal of increasing adult learners reading and writing knowledge, the goals for this class were more general than, for example, increasing reading and writing skills. Therefore tutor knowledge of specific reading and writing processes did not seem to pose the same restrictions to adult learning, although further knowledge of the adult learners' disability might have offered increased learning benefits. Strategy use and learning seemed to evolve as a stronger relationship was established with the adult learner, perhaps based on the tutors' increased knowledge about the learner needs. Developing a positive relationship with adult learners was an important means of supporting adult learners' confidence level, and assisted in supporting the goals for the class. Just as a positive tutor-learner relationship is important for those without disabilities (Beder & Medina, 2001), a trusting relationship seemed critical for the learning of adults with developmental/intellectual disabilities in this class.

The broad topics used in this class provided some support for their incorporation into adult learners everyday lives. The goals of the class, such as to support everyday competency, were linked to activities that, in many cases, replicated what adults encounter in their everyday lives. For adult learners with disabilities, making the transfer of new knowledge to common practices as easily as possible is necessary as adults with developmental disabilities have the reduced ability to transfer information (Beck & Hatt, 1998) and the

similarities between in- and out-of-school learning would contribute to the transition. Indeed, more authentic instruction leads to more change in adult literacy practices outside of class (Purcell-Gates et al., 2002).

The incorporation of out-of-school literacy topics and activities to assist learning also supports a social practice view of literacy learning. There are various debates about how to best support adult learning (e.g., social practice vs. autonomous models) (Street, 2001) and for the participants in this study, the social practice view of literacy was dominant in views about learning as demonstrated from the class goals and from the overall activities incorporated. Supporting adult learning was based on activities and knowledge class coordinators believed was an important part of adult learners social lives. Coordinators and tutors expressed the goals of providing transferable skills that can be used in adult learners' everyday lives, as promoted by Ladson-Billings (1995), and adult learners, even in their goals to improve in reading and writing, related areas of their social lives to their engagement in class activities. It may have be the case that adults learners would gain more reading and writing skills in a shorter period of time had a more autonomous view of literacy learning been adopted in this class. However, based on the goals and the general needs of adult learners with developmental/intellectual disabilities, this approach to literacy teaching and learning seemed most appropriate.

Recommendations

There are several recommendations based on the findings of this study. Given that the goals of adult learners, and tutors and coordinators, were different, one of the recommendations is to make more explicit for adult learners the link between the class content and reading and writing development in their daily lives (for e.g., the role of vocabulary discussed in class for reading comprehension in their out-of-school lives, such as in their volunteer jobs). This can be accomplished by pointing out new vocabulary in written materials that they bring from home or other authentic material incorporated in class. Because there are strong links between oral language and reading comprehension (Taylor, Greenberg, Laures-Gore & Wise,

2012), building stronger oral language skills in learners can support their literacy learning as advocated by the coordinators and tutors and this could be further explained to adult learners given some adult learners stated goals.

In addition to making more explicit to adult learners links between class content and their reading and writing development, it is important that adults continue to engage in activities in class that connect to their out-of-school literacy lives as prior research has shown it supports learning (Purcell-Gates et al., 2002). However, asking adults about the types of activities that are purposeful to them rather than assuming they are functional may prove more beneficial for learning. In this study, some adult learners reported not having a stove and this could restrict some of their engagement in class activities, such as recipes. Many of the adult learners lived very social lives (claimed to engage in emailing, go to movies, etc.) and this could be explored by the coordinators and tutors early in the class, such as by asking the adult learners to bring in print materials that are part of their everyday social lives. More knowledge about adult learners out-of-school lives will further support a social practice view of learning as advocated by the coordinators and tutors. As explained by Dirkx (2001), as cited in Terry (2006), "personally significant and meaningful learning is fundamentally grounded in and is derived from the adult's emotional, imaginative, connection with the self and broader social world" (p. 64).

Although this class provided flexibility in tutoring practices, it would have been more helpful to provide tutors with information on the disability of the adult learner at the beginning of the tutoring process to support a positive teacher-learner relationship. This would also contribute to connecting new knowledge, including reading and writing activities, more efficiently to some of the learner strengths. Several of the tutors asked for increased knowledge of the learner's disability so that they could research further strategies to use with the learner. For privacy reasons, as explained by the coordinators, information about the adult learners' health and educational background was not shared with the tutors. However, from the perspective of tutors, further information in this regard would likely

have supported the teaching-learning process, even when more general teaching and learning strategies are used.

Given that the establishment of a positive relationship between the adult learner with a disability and the tutor was reported as significant for learning in this study, more personal sharing activities such as the "I am" activity will help adult learners and tutors get to know each other early in the teaching-learning process. As stated by Becky: "You need to get to know the whole person rather than knowing what they do on Tuesday." Clearly, interpersonal skills seem to be an important part of the tutoring process yet it has not been a consistent focus in tutor training (Sandman-Hurley, 2008). For adult learners with developmental/intellectual disabilities, positive communication between the educator and adult learner may be even more important for supporting learning engagement. Therefore, as suggested by Belzer (2006) and Sandman-Hurley (2008), there is a need to revisit the role of tutor training considering limited knowledge taught to tutors.

Limitations

One of the limitations of this study was that connected to a self-report, that is, the risk of socially appropriate responses often linked to this type of data collection. Observational data of adult learners' everyday practices both before and after class engagement would provide a more accurate understanding of the authenticity of classroom learning. In addition, being both the author and the participant in this research study raises issues of reflexivity (Coghlan & Brannick, 2005). As an attempt to offset personal beliefs influencing outcomes, a coordinator in this study was given a copy of the results and was asked for feedback on the findings. Only minor modifications were made following her review. Also, prior to conducting this research, the author did not discuss theoretical perspectives about literacy with the program coordinators, tutors, or adult learners to reduce observer effect on the teaching-learning process.

Another limitation of this study was the small sample size. However, considering the minimal research on how volunteer literacy classes support the learning of adults with developmental/intellectual disabilities, this research provided insight on strategies, behaviours, and activities that were reported as assisting adult learning as well as areas for class improvement that may be informative for those designing volunteer programs for adults with developmental/intellectual disabilities. Further information is needed on how authentic activities support the learning of adults with developmental/ intellectual disabilities in order to improve practice in volunteer programs.

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